# Proposed Amendments to the Unified Development Code (Chapter 35 of the City Code)

**Sec. 35-303. Establishment of Districts.**

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Overlay Districts
(Listed in Alphabetical Order)

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| "MLOD" | Military Lighting Overlay Districts |
| "MSAO" | Military Sound Attenuation Overlay Districts |
| "NCD" | Neighborhood Conservation Districts |

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**Sec. 35-339.05. "MSAO" Military Sound Attenuation Overlay District.**

*Statement of Purpose*
*Noise generated from military training exercises and aircraft operations affects quality of life for various San Antonio neighborhoods and business districts. This section establishes standards intended to lessen the external noise audible within the interior of noise sensitive structures to a level which greatly mitigates the impact on the general welfare of the public.*

(a) **Zoning District Establishment and Designation Criteria.**

(1) This section establishes a military sound attenuation overlay district as an overlay to the base zoning districts. Separate ordinances are required to designate an overlay district via the official rezoning process.

(2) To be designated as a military sound attenuation overlay district, the area must be identified by the United States military, joint land use study or adopted master plan as being situated within a noise military influence area.

(3) The zoning designation for a military sound attenuation overlay district shall consist of a base zone symbol and the "MSAO" symbol as a suffix. Military sound attenuation overlay districts shall be numbered sequentially to distinguish among different districts, i.e., "MSAO-1", "MSAO-2", etc.

(b) **Noise Sensitive Land Uses.** The following is a list of noise sensitive land uses subject to this section:

(1) Residential structures including but not limited to single-family and multi-family dwellings

(2) Assisted living facilities, nursing facilities, adult day cares and similar congregated living uses

(3) Schools including but not limited to primary and secondary schools, colleges and universities; **Exceptions:**

(A) Public school buildings built with standard masonry construction techniques

(B) Non-classroom portions of public or private school gymnasiums

(4) Facilities for religious worship or study
(5) In-patient medical facilities including but not limited to hospitals and residential treatment centers
(6) Funeral homes
(7) Child care facilities
(8) Senior/community centers
(9) Libraries

(c) **District Standards – Camp Bullis (MSAO-1)**

All habitable portions of structures occupied by noise sensitive land uses shall be designed and constructed to achieve either:

- an outside to inside noise level reduction (NLR) of at least twenty-five (25) a-weighted decibels (dBA), or
- be built to the standards set forth in subsection (c)(1)(B) below.

These standards are required regardless of whether the noise sensitive land use is stand-alone as a single use or part of a larger development that may include more than one land use.

(1) **Options for Compliance.** Compliance may be demonstrated using one of the following methods:

(A) Use simultaneous noise readings of instantaneous outside and inside noise levels in accordance with ASTM E 966 to ensure the structure achieves an outside to inside NLR of at least twenty-five (25) dBA; or

(B) Utilize construction materials with a minimum tested or listed sound transmission class (STC) rating of forty (40), in accordance with ASTM E 90, for walls and ceilings, and with a minimum tested or listed STC rating for doors and windows as specified below, in accordance with the following construction methods:

1. **Walls.** The specific exterior wall assemblies listed below shall include the interior finishes set forth therein. **Exception:** Exterior wall assemblies or materials that have been tested or listed with a minimum STC rating of forty (40).
   a. **Brick veneer.** When exterior walls are constructed using brick veneer, a minimum of one-half (½) inch gypsum drywall shall be applied as the interior finish.
   b. **Vinyl or cement sidings.** When exterior walls are constructed using vinyl or cement sidings, a minimum of five-eighths (5/8) inch gypsum drywall shall be applied as the interior finish.
   c. **Other assemblies and materials.** All other exterior wall assemblies or materials shall have a tested or listed minimum STC rating of forty (40).
2. **Roof/Ceiling Assemblies.** Roof/ceiling assemblies shall be constructed in accordance with the requirements of subsections 1 or 2 below. **Exception:** Roof/ceiling assemblies or materials that have been tested or listed with a minimum STC rating of forty (40).
   a. Ceilings with unconditioned attic space shall be insulated with a minimum of one-half (½) inch gypsum drywall on the interior ceiling side covered with a minimum of twelve (12) inches of blown in fiberglass insulation.
   b. Ceilings without attic space above shall be insulated with a minimum of five-eighths (5/8) inch gypsum drywall on the interior side filled with a

minimum of nine (9) inches of fiberglass batt insulation with a one (1) inch air space between the roof sheathing and the fiberglass.

3. **Windows.** The cavity between the wood framing and the window frame shall be insulated with fiberglass insulation or foam insulation to the depth of the window frame.
   a. If the exterior windows and doors together comprise no more than thirty percent (30%) of the total exterior wall area, all windows shall have a minimum tested or listed STC rating of thirty-two (32).
   b. If the exterior windows and doors together comprise more than thirty percent (30%) of the total exterior wall area, all windows shall have a minimum tested or listed STC rating of forty (40).
4. **Doors.**
   a. If the exterior windows and doors together comprise no more than thirty percent (30%) of the total exterior wall area, all exterior doors shall have a minimum tested or listed STC rating of thirty-two (32).
   b. If the exterior windows and doors together comprise more than thirty percent (30%) of the total exterior wall area, all exterior doors shall have a minimum tested or listed STC rating of forty (40). **Exception:** An exterior door may have a tested or listed STC rating of less than forty (40) when installed with a storm door which when combined, achieve a minimum tested or listed STC rating of forty (40).
5. **Mechanical Systems.** Mechanical ventilation systems (HVAC) shall provide minimum air circulation and fresh air requirements for various uses in occupied rooms without the need to open any windows, doors, or other openings to the exterior. In-window, through-wall, or through-floor air conditioning, ventilating, or heating units shall not be used. **Exceptions:** A ductless system may be utilized if the system's exterior wall penetration(s) are each no greater than three (3) inches in diameter. Additionally, an in-window, through-wall or through-floor unit may be installed if the following is implemented to reduce sound entering through the unit:
   a. Insert a duct extension with at least two (2) ninety degree (90°) turns between the structure and the unit. This may require the installation of a support stand and slab for the unit.
   b. Add acoustically designed "upducts" in the ceiling of each room to allow proper circulation of air while windows are closed.

(2) **Certification.**

(A) Prior to approval of final inspection or issuance of a certificate of occupancy, all project applicants shall submit to the planning and development services department a signed statement certifying compliance with this section.

(B) A single certification statement for multiple structures in the same development may be used as long as the structures implement the same floor plans and construction methods.

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**Appendix A**
**Definitions and Rules of Interpretation.**

**Sec. 35-A101. Generally.**

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ASTM E 90. The standard test method for laboratory measurement of airborne sound transmission loss of building partitions and elements.

ASTM E 966. The standard guide for field measurements of airborne sound insulation of building facades and façade elements.

A-Weighted Decibel (dBA). The most commonly weighted sound filter used to measure perceived loudness versus actual sound intensity. The human ear responds differently to frequencies. For example, the human hearing system perceives mid-frequency sounds as louder than low and high frequency sounds. To accommodate this condition when measuring sound levels, filters need to be installed into sound meters. The results are a more accurate measurement of sound for the human hearing system.

Decibel (dB). Unit of measurement used to express the intensity or loudness of sound.

Sound Transmission Class (STC). An integer rating relating to the quality of sound attenuation for building partitions such as walls, ceilings, doors, and windows.